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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/693,394	10/24/2003	Mikhail Godin	2102483-991410	1651

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DLA PIPER US LLP
153 TOWNSEND STREET
SUITE 800
SAN FRANCISCO, CA 94107-1957

EXAMINER

DABNEY, PHYLESHA LARVINIA

ART UNIT	PAPER NUMBER
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2614

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/22/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/693,394

Applicant(s)

GODIN, MIKHAIL

Examiner

Phylesha L. Dabney

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) 4,6,8,9,21-24,27-33,35,37,39 and 40 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5,7,10,11,26,34 and 36 is/are rejected.
- 7) ☒ Claim(s) 2,12-20,25 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

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DETAILED ACTION

This action is in response to the response filed on 20 November 2006 in which claims 1-40 are pending.

Election/Restrictions

Applicant's election without traverse of **Group I, Species I, Claims 1, 2, 3, 5, 7, 10-20, 25-26, 34, 36, 38 (Figure 4)** is acknowledged.

Claims 4, 6 (depends on claim 4), 8-9 (depends on claim 4), 21-24, 27-33, 35, 37, and 39-40 withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group and Species, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 20 November 20, 2006.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002

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do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claims 1, 3, 5, 10-11, and 26 are rejected under 35 U.S.C. 102(b) as being anticipated by Godkin et al (U.S. Patent No. 4,808,955).

Regarding claim 1, Godkin teaches a linear actuator comprising a core (12, 46, 58) having a longitudinal axis; a coil (42, 44; 54, 56) shaped for movement along the longitudinal axis of the core; and a magnet structure (22, 24, 26, 28; 30, 32, 34, 36) positioned along the longitudinal axis of the core; wherein the core includes first and second portions (at 46, at 58), each including an end face and a cavity (near 48-49) having an axis of symmetry along the longitudinal axis of the core, and further wherein the first and second portions are positioned so that the end faces oppose each other and are separated by a gap (at least 49).

Regarding claim 3, Godkin teaches the linear actuator of claim 1, wherein the magnet assembly (22, 24, 26, 28; 30, 32, 34, 36) includes magnets of the same polarity facing the coil.

Regarding claim 5, Godkin teaches the linear actuator of claim 3, wherein the magnets (22, 24; 30, 32) are shaped to be positioned outside of the coil.

Regarding claim 10, Godkin teaches the linear actuator of claim 1, wherein the cavity formed in the first portion of the core has a hemispherical cross section along the longitudinal

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axis (cylindrical structure, col. 3 lines 46-47).

Regarding claim 11, Godkin teaches the linear actuator of claim 10, wherein the cavity formed in the second portion of the core has a hemispherical cross section along the longitudinal axis (cylindrical structure, col. 3 lines 46-47).

Regarding claim 26, Godkin teaches the linear actuator of claim 3, wherein the gap is formed in a plane transverse to the longitudinal axis, and the magnets (22, 24, 26, 28; 30, 32, 34, 36) are positioned to form a space between them which is aligned with the plane transverse to the longitudinal axis (figure 4).

Claims 1, 3, 5, 7, 34, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao (U.S. Patent No. 5,808,379).

Regarding claims 1, 3, 5, Zhao teaches a linear actuator comprising a core (center pole, 40) having a longitudinal axis; a coil (14) shaped for movement along the longitudinal axis of the core; and a magnet structure (34-35) positioned along the longitudinal axis of the core; wherein the core includes first and second portions (figure 5), each including an end face and a cavity (44) having an axis of symmetry along the longitudinal axis of the core, and further wherein the first and second portions are positioned so that the end faces oppose each other and are separated by a gap (44).

Regarding claim 7, Zhao teaches the linear actuator of claim 5, further including a

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housing (37-38) supported by core flanges and positioned about the coil and the core, and wherein the magnets are supported by the housing.

Regarding claim 34, Zhao teaches a linear actuator comprising a core (center pole, 40); a coil (14) shaped to be positioned about the core for movement along a longitudinal axis of the core; a magnet assembly (34-35) including magnets of the same polarity facing the coil; and a housing (37-38) supported by core flanges and positioned about the coil and the core; and wherein the core includes first and second portions (figure 5), each having an end face, and the first and second portions are positioned along the longitudinal axis so that the end faces oppose each other and are separated by a gap (44), and further wherein a cavity is symmetrically formed in each of the end faces along the longitudinal axis.

Regarding claim 36, Zhao teaches the linear actuator of claim 34, wherein the magnets (34-35) are shaped to be positioned outside of the coil, and to be supported by the housing.

Allowable Subject Matter

Claims 2, 12-20, 25, and 38 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phylesha L. Dabney whose telephone number is 571-272-7494.

The examiner can normally be reached on Mondays, Tuesdays, Wednesdays, Fridays 8:30-4 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 571-272-7499. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
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Alexandria, VA 22313-1450

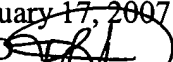
Or faxed to:


(703) 273-8300, for formal communications intended for entry and for informal or draft communications, please label "Proposed" or "Draft" when submitting an informal amendment.

Hand-delivered responses should be brought to:

Customer Service Window
Randolph Building
401 Dulany Street
Alexandria, VA 22314

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

January 17, 2007
PLD 


CURTIS KUNTZ
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